

**BY ORDER OF THE COMMANDER,
PACIFIC AIR FORCES**



AIR FORCE INSTRUCTION 11-301, VOLUME 1

PACIFIC AIR FORCES COMMAND

Supplement 1

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Flying Operations

AIRCREW LIFE SUPPORT (ALS) PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction establishes and defines the Life Support equipment, technician and aircrew continuation training programs for assigned/attached PACAF flying units, personnel assigned/attached to PACAF for flying, and other aircrew members flying PACAF aircraft. Amplifies policies and procedures contained in AFI 36-2201, AFI 11-301 and other USAF life support directives. Clarifies responsibilities, standardizes equipment control procedures, defines general equipment maintenance/inspection requirements, establishes security procedures and prescribes minimum equipment requirements for the PACAF Life Support sections and aircrews. It implements AFD 11-3, Life Support; AFI 11-301, Life Support Program; and AFI 36-2209, Survival and Code of Conduct Training. Failure to comply with such material is punishable as a violation of Article 92, UCMJ. This publication does not apply to the Air National Guard (ANG); however, it does apply to Air Force Reserve Command (AFRC) and their units when in Pacific theater operations. Send comments and suggested improvements to this supplement, through channels, on AF Form 847, **Recommendation for Change of Publication**, to HQ PACAF/DOIT, 25E Street, Suite I-232, Hickam AFB HI 96853-5426.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

AFI 11-301, Vol 1, 19 July 2002, is supplemented as follows:

2.9.3. Appoint qualified life support investigator to participate on mishap review boards.

2.9.23. Membership will include but is not limited to: Egress, Survival Equipment, Aerospace Medicine (flight surgeon), CE Readiness, Logistics, Survival, Evasion, Resistance, and Escape (SERE), Safety, aircrew representation, Standards and Evaluation (Stan Eval), Pararescue, and Combat Rescue Officer (CRO) where available.

2.9.25. Conduct staff assistance visits to field units every 15 to 24 months, not to exceed 12 months for units in Korea, for the purpose of providing HQ PACAF/DOTT level assistance.

2.10.1. The LSS is the OG/CC POC for LS functional responsibilities, manpower/manning requirements, and assignment of personnel.

2.10.4.1. (Added) . Ensure funding is available to maintain Emergency Procedures Trainers (EPT), and related training equipment to support the wing life support training program. Contact Det 1 ACC/TRSS, Luke AFB, AZ for major overhaul, modification or reconfiguration to EPT.

2.10.8. Wing units with same MDS or life support equipment will have gear identically configured. This will reduce confusion when pilots/aircrew members fly with other units within the wing.

2.11.2. Familiarization program will include T.O.s, technical order options, publications, messages, and PACAF DOTT web page. Ensure all life support personnel perform an annual review of applicable T.O.s and publications. Personnel will annotate compliance with initials or electronic signature and date to verify currency.

2.11.3. Monitor the status of HQ and wing SAV findings. Ensure NCOICs provide monthly updates until completion.

2.11.5. Maintain a record of applicable TCTOs for 2 years from date of completion. Appropriate inspection forms will be annotated to identify TCTO compliance.

2.11.7. Ensure the MAJCOM or 311 HSW approves all equipment modifications prior to flight.

2.11.11. Question and answer sessions do not qualify as task certification. Task certifications will include a total review of all applicable guidance from associated technical orders.

2.11.15. (Added) . Ensure copies of annual munitions and LSE forecasts, AFTO Form 22s (relating directly to ALS equipment and issues), suggestions, material deficiency reports, and hazard reports are routed to HQ PACAF/DOTT. NOTE: When posting forecasts on applicable OPR web sites notify the MAJCOM via e-mail of the posting.

2.11.15.1. (Added) . Units with Out-of-Cycle or supplementary munitions requirements will contact the supporting MASO and review AFI 21-201, *Management and Maintenance of Non-Nuclear Munitions*, for requisition procedures. LSS will inform MAJCOM of shortages and status.

2.11.16. (Added) . Establish liaison and coordinate with other organizations supporting the life support function to ensure equipment is adequately maintained.

2.11.17. (Added) . Implement current life support policies, regulations, and guidance established by higher headquarters directives.

2.11.18. (Added) . Implement wing life support policy/procedures.

2.11.19. (Added) . Wings will supplement this instruction within 6 months of the publication date of this instruction.

2.11.20. (Added) . Establish communications among OG/OSS/squadron agencies to ensure appropriate issues are elevated/addressed.

2.11.21. (Added) Monitor and validate data entered in ALERTS website monthly.

- 2.12.1. Korea based units will identify personnel to serve as LSO prior to theater assignment and ensure they attend the USAF Aircrew Life Support Officer course (L3OZRIT171 000) prior to departure from United States.
- 2.13.2. Maintain a record of applicable TCTOs for 2 years. Appropriate forms will be annotated to identify TCTO compliance.
- 2.13.4. Provide LSS monthly updates until resolution of SAV/HQ inspection findings.
- 2.15.8. (Added) . Process through the appropriate life support agency prior to and after mobility/deployment, TDY, or PCS.
- 2.16.3.2.1. (Added) Provide units a listing of pilots/aircrew members approved to use HCV, LEP, and NVGs.
- 3.3.8. Use additional Allowance Standards to ensure required quantities of LS equipment not listed in AS 016 and 450 are on hand and authorized.
- 3.3.9. Units will forward copies of supply difficulty letters, mission impact statements, and base supply responses to LSS for submittal to HQ PACAF/DOTT. Information must include NSN, nomenclature, off-base requisition number, priority, and quantity requested.
- 3.3.9.1. (Added) . Establish procedures to monitor supply products at least monthly to ensure accuracy of assets on back order.
- 3.7.1. QA inspector will be evaluated initially by NCOIC to validate proficiency and documented in training records.
- 3.7.2.1. QCIs will be performed daily. 10 percent QA includes equipment that has been postflighted. As a minimum, units will also QA training records, CTKs, weapons locker, flare locker, and test equipment monthly. 100 percent QA will be performed on all technicians during qualification upgrade.
- 3.7.2.2. (Added) . Support agencies (not all inclusive) include: survival equipment, precision measurement equipment laboratory (PMEL), and medical supply.
- 3.7.3. As a minimum CPIs must include life raft connection to the drop lanyard, torque value, installation of swag ball/universal adapter, survival components, and a closing inspection. Ensure the CPI is documented appropriately.
- 3.7.4. If original technician is not available to correct discrepancies before equipment is needed for flight it will be repaired and placed in service by another certified technician.
- 3.7.5. Units will maintain a historical file for at least 12 months.
- 3.8.1.2. MAJCOM options list is available on the HQ PACAF/DOTT web page.
- 3.8.3. LSS will develop standardized OIs to be used throughout the wing/group in the following areas: Resource Protection and Control, Ground Safety, Hazardous Communications, Explosive Safety, Composite Tool Kit (CTK), Technician Training, Aircrew Training, Quality Assurance. **Attachment 2 (Added)** provides guidelines as to what each instruction will contain.
- 3.8.4. (Added) . Checklists. Maintain equipment checklists and work cards IAW TO 00-5-1. The LSS will review and forward local prepared checklist to the appropriate offices for approval in accordance TO 00-5-1.

3.9.2. All equipment items/supplies stored in cabinets, drawers, containers or other areas will be marked with serviceability tags. Oxygen equipment will be stored in zip lock bags or vacuum-sealed containers.

3.18.3. Submissions must be received by HQ PACAF/DOTT NLT 15 January.

3.19. Units will maintain back-up disks/server or hard copies of the ALSMS data files. Back up data at least once a week. Ensure all applicable fields, to include but not limited to, DOM, DOI, DOE, contract number, lot number, and serial number are entered.

4.2.1.1. Master Training Plan will include an upgrade and qualification timeline for each skill level.

4.2.1.3. (Added) . Certify NCOICs on unit tasks.

4.2.3.1. In situations where the NCOIC is the trainer and no other certifier is available, the LSS or another task certified NCOIC will task certify trainees.

4.2.4.3. Trainer will annotate trainee progress at least monthly on AF Form 623A, Continuation Sheet.

Table 4.1. ALS PERSONNEL TRAINING REQUIREMENTS.

COURSE TITLE	ALSCTI	T1T1X1
Arctic Survival Training	M	M
S-V87-A (Note 9)		

Note 9. (Added) Mandatory for Misawa and Alaska units.

5.2.2. ALSCT instructors must be recommended and appointed by the commander. ESA egress and hanging harness training may be accomplished by qualified pilots/WSO when trained and certified by the wing LSO. Life support personnel will not teach ESA egress with the exception of Air National Guard units. The LSS can provide certification if the LSO is not available to certify additional pilots.

5.2.2.1. (Added) . LSS will perform initial certification of LSO, ALSCT, and SERE instructors using objectives defined in the Instructor Guides (IG). LSS will recertify all instructors (a minimum of one class) not to exceed 18-month intervals, which will be documented in OJT records or by letter. Exception: Trainers in Korea are evaluated annually.

5.2.2.2. (Added) . The following are authorized to teach the courses listed in Table 5.1.

ALSCTI, SERE: LL01, LL04, LL06, LL03 (NON EJECTION ONLY)

LSO: LL02, LL03, LL05

5.3.1. LL01, initial familiarization with flight equipment should be combined with the initial LL06, Life Support Equipment training. Both courses may be conducted concurrently with SS01, Local Area Survival training as a combined life support/SERE training event. SERE will cover all environmental aspects and the effects on personnel and equipment, and determine personnel recovery tactics, techniques, and procedures applicable to local area flying operations. Upon completion of these objectives the aircrew will be considered trained in regards to SS01, Local Area Survival. SS01 lesson plans will include all aspects of survival and rescue within the local environment to include local rescue procedures and pararescue involvement if applicable. Completion of this course will fulfill the annual requirement for LL06.

5.4.3. Requests will be forwarded to MAJCOM POC NLT 1 November each year.

5.5.4. For non-ejection aircraft this training may be given during LL06 if the training environment permits. The SERE Specialist will provide Emergency Parachute Training as directed by AFI 16-1301. See AFI for specific objectives.

5.7.2. Training must be accomplished within 30 days of flight.

5.7.2.1. (Added) Members assigned to PACAF units in casual status awaiting pilot training or Aerospace Physiologist may be placed on a 60 day currency after meeting the following requirements. Member must first complete egress and hanging harness class applicable to the assigned MDS a minimum of five times during a 60 day period. Member must complete life support equipment training. After the above two conditions are met, the LSO will evaluate/validate the member's proficiency and forward a memorandum to the OG/CC recommending the member be placed on a 60-day currency for the MDS specific egress and hanging harness training. The OG/CC will be the approval authority for the 60 day currency.

5.8.2. As a minimum, a duplicate copy of the source document (AF Form 1522) will be retained for the duration of the training frequency and training is reaccomplished. For example: Ejection seat egress training has a six-month requirement so the source document must be maintained a minimum of six months.

5.9.4. All EPT inspections (prior to use, monthly, annually) will be documented in AFTO 781D, *Calendar and Hourly Item Inspection* document or equivalent. Hanging harness trainer will be inspected annually by safety and certified by memorandum.

5.9.5. Units may use operational night vision devices and PRC-112 type radios for training purposes if the following conditions are met: items must be inspected immediately after completion of training to ensure serviceability and extreme care is given to these valuable assets during the training class.

5.9.6. (Added) . Life support is responsible for maintaining applicable flight simulator life support equipment. The frequency and procurement will be as agreed upon and specified in the unit supplement to this instruction. The LSS will coordinate an adequate a formal support agreement with simulator owner.

6.2.7. (Added) . Clothing authorized for Arctic Flights is listed in **Attachment 11(Added)** and **Attachment 12 (Added)**.

6.4. PACAF units will perform inspections, sizing and fit checks IAW technical guidance. Fit checks will be documented in ALSMS or equivalent.

6.4.1.4. (Added) . Helmets are required for PACAF aircrews for head protection during emergency bail-out, for performing some flight duties (e.g., flight engineer, loadmaster) or when required for helmet mounted accessories (e.g., night vision systems, or nuclear flash protective devices). Helmets will be stored in the life support shop when not required for flight.

6.4.2.1. ALS technicians will have their vision validated by the flight surgeon or optometry clinic to ensure they meet visual requirements for maintaining NVGs established in technical orders.

6.4.2.1.1. (Added) . Aircrew will be trained by the flight surgeon on the ANVIS limitations and be tested to meet minimum visual acuity standards. The flight surgeon will provide a letter of aircrew members qualified to use NVGs.

6.4.2.1.2. (Added) . Units using the Air Command Pointer (ACP) will have a facilities inspection accomplished by the base Bioenvironmental to ensure facilities are safe for use and testing. All personnel handling ACPs will be trained in the handling of these devices and training documented.

6.4.2.2. Units issuing ANVS goggles will have eye test lanes or 20/20 testers for aircrew preflight adjustments and will ensure life support technicians are available to assist aircrews in preflighting/adjusting ANVS.

6.4.2.2.1. (Added) . Units will place an inspection due date label on one of the NVG monocular housings.

6.4.2.3. Thermal Flash Protective Devices (TFPD). Required for all aircrews on SIOP missions. Either the MIL-G-635 or PLZT goggles at the wing commanders discretion will satisfy requirements for TFPD. On aircraft that are PLZT modified, it is recommended that the PLZT goggles be used.

6.4.2.3.1. (Added) . Flash blindness goggle kits (MIL-G-635) will consist of one container, one complete pair of goggles, one KMU-219/P modification kit, and one monocular eye shield. Place a piece of shock absorbing material on the bottom of each container with goggles facing down. Protect the lens from scratches with a piece of flannel cloth, NSN 8305-00-656-1259, or equivalent. One monocular eye shield will be placed in a polyethylene bag and installed in each goggle container.

6.4.2.3.2. (Added) . Attach a DD Form 1574 to each container to indicate date inspected and date due.

6.4.2.3.3. (Added) . MIL-G-635 goggle kit quantities will be placed on the aircraft as listed in AFI 11-302V1 as a minimum. Goggles stored in PCKs to be used in conjunction with multiplace aircraft do not require the monocular eye patch or an AFTO Form 1574s attached to each storage case. Inspection data will be placed on the AFTO Form 1574 attached to the outside of the container.

6.4.2.3.4. (Added) . EEU-series (PLZT) goggles will be inspected by life support personnel as specified in the applicable TO. Inspections of PLZTs will be documented on the applicable AFTO form and each container will have a DD Form 1574 attached to the outside of the carrying case.

6.4.2.3.5. (Added) . Each PLZT container will be modified to accommodate a monocular eye shield by cutting a 3/4 inch deep recess the size of the eye shield in the upper right portion of the lid cushioning material. Eye shields will be stored face down in the foam cut-out, and with a slight loop in the elastic string.

6.4.2.3.6. (Added) . Life support technicians will ensure serviceability of the PLZT top latch helmet mount and power cable assemblies concurrent with the helmet inspections.

6.4.2.4. (Added) . Aircrew Laser Eye Protection (LEP). Aircrews will receive hands-on training prior to their initial LEP flight. Training is defined in the LEP concept of operations.

6.4.2.5. (Added) . HIGH CONTRAST VISORS (HCV). Approved cockpits are listed in 14P3 series TOs.

6.4.2.5.1. (Added) . HCVs are authorized for daytime use only.

6.4.2.5.2. (Added) . Do not wear HCVs during take-off or landing because yellow runway markings may disappear.

6.4.3. System setup will be: mode normal, hours 24, contrast 50%, backlight 15 seconds, and sound off. Navigation setup will be: position format ddd°mm'ss.s", map datum WGS 84, CDI \pm 0.25, units nautical, and heading auto. Units will inspect GPS IAW **Attachment 10 (Added)** of this supplement. Units deployed during contingency operations will review Special Instructions (SPINS) at the deployed location to validate GPS setup.

6.4.3.1. (Added) Secure GPS receivers to survival vests using a 30-36 inch length of 100lb olive drab cord. Install an operational set and a minimum of two spare sets of batteries in the vest. Annotate GPS serial number on vest inspection card.

6.4.3.2. (Added) Establish procedures to ensure GPS assets are controlled and safeguarded against damage, loss, or theft. Maintain a list of serial numbers in Tab B of the CACRL.

6.4.4. Anti-G garments will be worn on all ejection seat aircraft IAW MDS instructions. Navy and other services anti-G garments are not authorized in USAF aircraft. All F-16 pilots and passengers will be briefed on G suit/knee interference with the F-16 side stick during ejection seat egress training.

6.4.5.2. Commanders will ensure their aviators are fitted with a personnel anti-exposure suit IAW Technical Data prior to their first flight requiring an anti-exposure suit. Aviators will not fly missions requiring anti-exposure suits unless they have a suit fit to them IAW the technical data. Fitting will include neck seal, wrist seals, leg length, and socks. Units will provide divers gloves for use with constant wear anti-exposure suits. Gloves may be issued to the aircrew before flight or may be placed in the survival kit/vest. If available, units will use the water test device during build up of the suit and after repairs. Units without the test device will continue to follow the optional procedures in the tech data until they receive the test device.

6.4.7. PACAF ejection seat units will wear life preservers at all times. Units deployed to or stationed at Eielson AFB, AK are exempt during routine training missions. PACAF units deployed to desert locations may remove life preservers at the discretion of the Operations Group Commander.

6.4.7.1. (Added) . The Adult/Child (A/C) (P/N A-A-50652) life preserver may be used on all passenger-carrying missions. Authorizations for A/C preservers are listed in AFI 11-302 V1 and will not be used to substitute other requirements. The LPU-6/P infant cot is required for infants 18 months of age and younger.

6.4.7.2. (Added) . Life preservers packed in A-3 bags will have a seal on the bag and a completed DD Form 1574 attached.

6.4.8. Survival kits will be inspected IAW technical orders. See [Attachment 6 \(Added\)](#) for list of required components. Units are not required to duplicate items from the survival vest and survival kit.

6.4.8.1. (Added) . All ejection seat aircraft (ESA) and HH-60 aircrews will wear survival vests on all missions. See [Attachment 5 \(Added\)](#) for ESA and AFI 11-302V1 for HH-60 listing of mandatory components.

6.4.8.2. (Added) . C-130 and UH-1 aircrews will wear survival vests on all combat missions and during operational inspections. See AFI 11-302V1 for listing of mandatory components.

6.4.8.3. (Added) . KC-135 aircrews will have the survival vest prepositioned on the aircraft and wear shoulder holster to carry the weapon. See AFI 11-302V1 for listing of mandatory components.

6.4.9. The MB-1, Part Number MS16070-21 is the primary restraint device authorized for helicopters. The PCU-17/P and HBU-6/P are the primary devices authorized for use in fixed wing aircraft (i.e., C-17, C-130, RC-135, etc.). Alternate loading methods are listed in each MDS series publication. All PCU-17/P restraint harnesses will be equipped with an oxygen connector mounting plate (NSN: 1660-00-656-2522).

6.4.10. Inspections will be accomplished IAW applicable technical orders.

6.4.11.1. Store oxygen connectors in A/OA-10, F-15, and F-16 aircraft. Pull-test these connectors at the aircraft IAW TO 15X5-4-1-101 and appropriate MDS series Job Guide in conjunction with the routine parachute inspection. In cold weather environments where the temperature may reach -20 degrees and below, the connectors may be kept on the harness as these cold temperatures cause the connection to be

difficult. Units will develop procedures in their local supplements to address these situations. Situations of switching the connectors from harness to aircraft may cause confusion for crewmembers; all crewmembers must be briefed prior to any changes taking place.

6.4.12.3. (Added) . Equip all parachutes with emergency locator beacons, automatic releases, and hook-blade knives. The MS-2000 or SDU-5/E strobe light with flashguard and infrared filter installed, AFP 64-15 and the SRU-16/P Minimum Survival Kit will be installed on back style parachutes and torso harnesses. These items may be installed in the survival vest at the option of the unit. Duplication of items is not required between the survival kit, torso harness, or survival vest.

6.4.12.4. (Added) . Group commanders will determine the day-to-day use of the PLD. During the decision making process commanders should consider the following: over-flown terrain, (i.e. mountainous, rough terrain, heavily wooded areas, etc.) flying time over terrain, and the various uses of the PLD not related to lowering oneself from a tree.

6.4.14. (Added) . Commercial Off-The-Shelf (COTS) batteries installed in life support equipment, to include spares, not addressed in technical orders or other governing directives, will have a service life of one year from date of installation (DOI) or until the next higher assembly becomes due inspection. Batteries should be maintained in their original packaging until ready for use. This will allow life support technicians the ability to validate the manufacturer's expiration date. Batteries that cannot be installed for a period of one year based off this expiration date will not be used. The DOI will be written on the battery with permanent marker, this will ensure batteries removed from equipment are easily identifiable from others. Additionally, all applicable fields in ALSMS will be used to track battery information.

6.5.1. Sanitization includes items such as scarves, squadron tee shirts, unit coins, and embroidered flight suit or visor cover.

6.5.5.2. The following ACDE items will not be vacuum packed. Butyl gloves, over capes, over boots, or HGU-41/P hoods.

6.5.6. (Added) . Return all individually issued life support equipment to a designated area for postflight inspection and storage. Life support personnel will maintain a postflight equipment log and document all inspections. Repairs that require replacement of parts will be documented on appropriate forms.

6.5.7. (Added) . Ensure life support technicians are available to aid aircrew members in fitting and pre-flight life support equipment.

6.5.8. (Added) . Life support is not responsible for storage, handling, servicing, or accountability of items such as thermos jugs, fire extinguishers, aircraft installed first aid kits, aircraft portable oxygen cylinders, pre-breather oxygen assemblies, halo kits, headsets, Kevlar helmets, ground crew chemical defense equipment, pyrotechnic flare pistols, E-and-E kits, NVG light kits, flak vests, passenger service equipment, aircraft escape slides, dosimeters, or items not related to the 412A system. Life Support will not store, issue, or maintain weapons other than those intended for aircrew member issue/use.

7.2.2.3. Training deficiencies that result in mission impairment will also be identified through SORTS.

7.2.2.5. Shortfalls will be identified to HQ PACAF/DOTT NLT 60 days prior to deployment.

7.4.3. Mobility supplies should not be used as a source of assets for daily operations at home station.

7.4.4. Mobility bins will contain supplies necessary to support surge-type operations under bare-base conditions (if tasked) for a minimum of 90 days without resupply. Sufficient test equipment will be available to meet mobility commitments and have current calibrations.

7.4.9. (Added) . Spare equipment (e.g., survival kits/parachutes/ LPU) should have a minimum of 90 days serviceability prior to deployment.

7.5.2.7. (Added) . HQ AMC/DOTL has arranged for small quantities of ACDE to be stored at Yokota AB. This equipment is available for the primary purpose of outfitting enroute (e.g., channel missions) aircrews that may get stranded during wartime taskings. Life support personnel manning Yokota AB for C-130 operations will maintain and issue this ACDE. This in-place ACDE is not intended as a substitute for aircrews hand-carrying their equipment into theater locations or when higher headquarters provides advanced notice.

7.7.1.1. (Added) . Ensure ALSCT and SERE instructors in Alaska are qualified annually on weapons handling procedures, operations, cleaning, and security requirements, as applicable for the M870 shotgun for use during field portions of combat survival training and Cope Thunder exercises. Units will outline additional weapon requirements in local operating procedures or applicable directives.

7.7.3. (Added) . During contingency operations, aircrews will wear weapons on survival vests in ejection seat aircraft. HH-60G and UH-1N aircrews may wear their weapon in the vest or in thigh holster. Non-ejection seat aircrews may wear the weapon in the survival vest or shoulder holster.

Table 7.1. AIRCREW CHEMICAL DEFENSE BASIS-OF-ISSUE (BOI).

Nomenclature	D-Bag Quantities	D-1 Bag (Mini) Quantities	Total Quantities	Training Quantities
Masking Tape 1"		1	1	N/A
Scissors		1	1	N/A
O-Ring, Emergency 02	2	1	3	N/A
Canister Gasket, Manifold Assembly	2	1	3	N/A
Canister Gasket, Blower Assembly	2	1	3	N/A
Electrical Ties	8	4	12	N/A
Flight Gloves, Oversize	2	1	3	N/A

Attachment 2 (Added)**OPERATION INSTRUCTIONS**

The following information is for reference purposes and identifies the minimum areas to be addressed in the development of wing Operating Instructions.

1. RESOURCE PROTECTION AND CONTROL PROGRAM will encompass:**Controlled Area:**

AFI 31-101, *Air Force Installation Security Program*

Munitions Storage Facility:

AFI 31-101, *Air Force Installation Security Program*

AFMAN 91-201, *Explosive Safety Standards*

DOD 5100.76-M, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives*

Storing Firearms:

AFI 31-101, *Air Force Installation Security Program*

Internal Circulation and Visitor Control Procedures:

T.O. 15X-1-1, *Oxygen Equipment*

AFI 31-101, *Air Force Installation Security Program*

2. GROUND SAFETY PROGRAM will encompass:**Mishap Prevention:**

AFI 90-901, *Operational Risk Management*

AFPAM 90-202, *Operational Risk Management (ORM) Guidelines and Tools*

AFI 91-202, *The US Air Force Mishap Prevention Program*

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*

ORM:

AFI 90-901, *Operational Risk Management*

AFPAM 90-202, *Operational Risk Management (ORM) Guidelines and Tools*

AFI 91-202, *The US Air Force Mishap Prevention Program*

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*

3. HAZARDOUS COMMUNICATIONS (HAZCOM) PROGRAM:

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*

4. EXPLOSIVE SAFETY PROGRAM:

AFI 91-202, *The US Air Force Mishap Prevention Program*

AFMAN 91-201, *Explosive Safety Standards*

5. COMPOSITE TOOL KIT (CTK) PROGRAM):

AFI 91-101, *Aerospace Equipment Maintenance management*

AFMAN 23-110, Vol 2, Part 13, Chapter 8, MAJCOM, and wing/unit directives

6. TECHNICIAN TRAINING PROGRAM:

AFI 36-2201, *Developing, Managing, and Conducting Training*

AFSC IT1X1 CFETP

AFI 11-301 Volume 1, [Table 4.1](#).

7. AIRCREW TRAINING PROGRAM:

IAW AFI 11-301 Volume 1, Chapter 5

Local Guidance (how, where, when, who)

8. QUALITY ASSURANCE PROGRAM:

AFI 11-301 Volume 1, Chapter 3, Paragraph 3.7.

Attachment 3 (Added)**PACAF MULTI-PLACE AIRCRAFT CONFIGURATION**

Minimum Required Equipment	HH-60G	UH-1N	E-3
Mask, -358 Series			5
Fire Fighters Smoke Mask			6
AWACS MBU-5/P 12/P			22
Passenger Oxygen Mask			25
EPOS			10
Restraint Harness, PCU-17/P			1
Life Raft, 7-Person, LRU-1/P or 9-Person; T-9	1	1	
Life Raft, 20-Person, F-2B			2
Life Preserver, LPU-2/P 10/P	2	12	40
Minimum Survival Kit		1	
Anti-Exposure Suit, CWU-16/P			40

Attachment 4 (Added)**PJ LOAD BEARING EQUIPMENT (LBE) VEST (NYLON)/SARVIP**

Pararescuemen (PJ), are authorized to wear the SRU-21/P survival vest or the PJ Load Bearing Equipment (LBE) or approved vest/LBE as approved by 311 HSW as required for mission execution.

Pararescuemen regularly deploy from aircraft to perform their primary mission. During routine flights where the PJ does not intend to deploy (i.e. non-alert with no Alternate Insertion/Extraction (AIE), etc.), the PJ will retain the mandatory life support equipment items. During alert, combat, or when required to deploy from the aircraft (i.e. AIEs), the PJ may modify the life support equipment items to meet mission requirements.

NOTES:

Life support organizations will maintain the following required complement of equipment based on number of PJs and the routine fly requirement. PJ LBE items don't require standardization for inspection.

Components do not require securing.

Pararescue personnel are not required to wear fire-retardant/anti-exposure clothing when special purpose clothing is considered more appropriate for mission completion.

Noun	Quantity
Survival radio PRC-90/112 series (w/spare battery)	1 each
Individual First Aid Kit (or equivalent)	1 each
Signal, Distress MK-13/MK-24 (or equivalent)	2 each
Mirror, Signal Type I or II (optional)	1 each
Signal, Kit, Personnel Distress, A/P25S-5A (or equivalent)	1 each
Strobe light, MS-2000 or SDU-5/E w/IR Filter and Flashguard (or equivalent)	1 each
Whistle Plastic (optional)	1 each
Compass, Lensatic or Silver Ranger (or equivalent)	1 each
Knife, Sheath General Purpose (or equivalent)	1 each
Knife, Pocket or Leatherman Tool (optional)	1 each
HEEDs (as required for mission)	1 each
Box, Matches, Waterproof w/matches (optional)	1 each
Packet, Sea Dye Marker (as required for mission) (optional)	1 each

Attachment 5 (Added)**SURVIVAL VEST
(EJECTION SEAT AIRCRAFT)**

The following items are mandatory in the survival vest for ejection seat aircraft:

Noun	Quantity
Survival radio, PRC-90/PRC-112 series (with spare battery)	1 each
Mirror, signal	1 each
Compass	1 each
Signal distress, MK-13 or 124	1 each
Holster (weapon as required)	1 each

NOTE:

If handheld GPS is available at the unit, it is a mandatory item in the vest. It will not be packed in the survival kit:

GPS (Garmin series) 1 each

Attachment 6 (Added)**ACES II SURVIVAL KIT**

The following items are mandatory in the ACES II survival kit:

Noun	Quantity
Life Raft, One Man	1 Each
Survival Kit, Individual, Tropical, Tactical Aircrew, in a plastic bag	1 Each
Signal Kit, Distress A/P 25S-5A	1 Each
Knife	1 Each
Signal Distress, MK-13/124	1 Each
Flexi Pac Water	6 Each
Whistle	1 Each
Sea Dye Marker	1 Each
Raft Repair Plugs	2 Each
AFTTP (1)3-2.26	1 Each
Wool Hood	1 Each
Matches and Container	1 Each
Divers Gloves+	1 Pair
Sleeping Bag++	1 Each

NOTES:

+May be in survival kit or issued to the pilot in conjunction with the anti-exposure suit

++Only mandatory for units flying in Alaska 1 Sep to 30 Apr

Attachment 7 (Added)**MINIMUM SURVIVAL KIT**

The following items are mandatory in the minimum survival kit used on UH-1, HH-60 aircraft:

Noun	Quantity
Survival Radio, PRC-90-series (w/spare battery)	1 each
First Aid Kit	1 each
Compass, Lensatic/Magnetic	1 each
Light, Marker, Distress, MS-2000 or SDU-5/E	1 each
Signal, Distress, MK-13/MK-124	3 each
Kit Signal, Personnel Distress, A/P25S-5A	1 each

NOTE:

See AFI 11-302V1 for all other aircraft.

Attachment 8 (Added)**TRAINING OUTLINE - LIFE SUPPORT EQUIPMENT AND RESCUE PROCEDURES
(LL01/LL06)**

A8.1. Objectives. Provide realistic hands-on training on signaling devices and refresher training on rescue procedures. Each aircrew member must satisfactorily demonstrate and explain the use/limitations and capabilities of each signaling and rescue item to the unit LSO or life support personnel. Provide realistic hands-on training on preflighting, fitting and refresher training on the operation of the survival vest and kit. Each aircrew member must satisfactorily demonstrate qualification and explain the operational features and use of all components to the unit LSO or life support personnel. Ensure each aircrew demonstrates acknowledge of the various items of aircrew clothing and use, protection provided, proper care and fit and the services provided by life support relating to fit, inspection, and repair of aircrew clothing.

A8.2. References:

A8.2.1. TOs 14S-1-102, 14S1-3-51, 11A10-26-7, 14S10-2-2 and applicable 31R series.

A8.2.2. JPub 3-50-1V2, JPUB 3-50V1 (Formerly AFMs 64-2), AFM 64-5.

A8.3. Training Aids:

A8.3.1. PRC-90/PRC-112 training radio with accessories.

A8.3.2. URT-33 beacon.

A8.3.3. Signal, smoke and illumination, MK-13/MK-124 Mod 0

A8.3.4. A/P25S-series signal kit.

A8.3.5. Mirror.

A8.3.6. SDU-5/E strobe light with filter/flashguard or MS-2000.

A8.3.7. Sea marker dye.

A8.3.8. Whistle.

A8.3.9. Rescue aircraft (when available).

A8.3.10. Applicable survival vest/kit.

A8.3.11. Components of the survival vest/kit.

A8.3.12. Helmet and oxygen mask.

A8.3.13. MQ-1/COMBAT EDGE tester with oxygen supply.

A8.4. Specific Areas to be Covered:

A8.4.1. Personnel locator beacons:

A8.4.1.1. Operation/capabilities/limitations.

A8.4.1.2. Location.

A8.4.1.3. Use of personnel locator beacons on the ground.

A8.4.2. Survival Radio:

A8.4.2.1. Operation/capabilities/limitations.

A8.4.2.2. Antenna.

A8.4.2.3. Accessories/Spare battery.

A8.4.2.4. Transmit voice.

A8.4.2.5. Transmit tone.

A8.4.2.6. Malfunctions.

A8.4.3. Signal, smoke and illumination, MK-13/MK-124 Mod 0:

A8.4.3.1. Capabilities/limitations.

A8.4.3.2. Operations.

A8.4.4. A/P 25S-series signal kit:

A8.4.4.1. Capabilities/limitations.

A8.4.4.2. Operation.

A8.4.5. Mirror:

A8.4.5.1. Capabilities/limitations.

A8.4.5.2. Operation.

A8.4.6. SDU-5/E or MS-2000 strobe light:

A8.4.6.1. Capabilities/limitations.

A8.4.6.2. Operations:

A8.4.6.2.1. Attachment and use of the IR filter/flash guard.

A8.4.7. Sea marker dye:

A8.4.7.1. Use.

A8.4.7.2. Capabilities/limitations.

A8.4.8. Whistle:

A8.4.8.1. Use.

A8.4.8.2. Capabilities/limitations.

A8.4.9. Rescue:

A8.4.9.1. Locations of nearest rescue facilities.

A8.4.9.2. Capabilities/limitations.

A8.4.9.3. Call sign, signals, tactics.

A8.4.9.4. Vectoring of rescue aircraft.

A8.4.9.5. Types, operation and use of pickup devices used by the rescue units.

A8.4.10. Kit/vest.

- A8.4.10.1. Location of survival vest/kit components.
- A8.4.10.2. Use of survival vest/kit components (aircrew members will demonstrate "hands-on" proficiency with vest/kit components).
- A8.4.10.3. Preflight of the survival vest/kit.
- A8.4.10.4. Selection and use of automatic or manual modes on kits that have an automatic deployment feature.
- A8.4.10.5. Release of survival kit from the parachute harness in applicable situations.
- A8.4.11. Understands proper fit of the helmet and oxygen mask.
 - A8.4.11.1. Preflight equipment on applicable testers (MQ-1, Manside, SCOT, etc).
 - A8.4.11.2. Understands the responsibility for proper care, periodic maintenance, preflight and post flight of the helmet and mask.
 - A8.4.11.3. Aware of the functions and the protection afforded by the helmet and oxygen mask.
- A8.4.12. Nomex gloves.
- A8.4.13. Nomex coveralls.
- A8.4.14. Aircrew boots.
- A8.4.15. Anti-G garment (if applicable).
- A8.4.16. Flight jackets.
- A8.4.17. Cold Weather Clothing Requirements (if applicable).
- A8.4.18. Anti-exposure garment (if applicable).
- A8.4.19. Specific Areas to be covered. Ensure each aircrew:
 - A8.4.19.1. Understands protection afforded by Nomex coveralls and gloves.
 - A8.4.19.2. Aware of the minimum mandatory flight clothing required by this instruction and other applicable directives.
 - A8.4.19.3. Can don and doff the anti-exposure garment and related insulated clothing.
 - A8.4.19.4. Can perform a preflight inspection of the anti-G garment.
 - A8.4.19.5. Stress proper G Suit fit in relation to G Loss of Consciousness (GLOC).

Attachment 9 (Added)**TRAINING OUTLINE LOCAL AREA SURVIVAL AND CONTINGENCY SERE
INDOCTRINATION (SS01 AND SS07)**

A9.1. Objectives: Identify terrain, environmental conditions, natural resources, survival needs, and local/deploying area rescue procedures that will benefit or hinder an aircrew member's survival or rescue in the local operational area.

A9.2. References:

A9.2.1. AFI 36-2209, Joint Pubs 3.50.1/2, AFTTP(I) 3-2.26, and AFP 64-15.

A9.2.2. TO 00-35A-39, 14S6-3-1.

A9.3. Training Aids:

A9.3.1. Local/deploying area photos.

A9.3.2. Survival/vest components

A9.3.3. Signaling devices.

A9.3.4. Rescue devices.

A9.3.5. Other equipment as needed.

A9.4. Specific Areas to be Covered:

A9.4.1. Local/deploying area terrain and environmental conditions.

A9.4.1.1. Seasonal temperatures.

A9.4.1.2. Average Precipitation.

A9.4.1.3. Hazards.

A9.4.1.4. Benefits.

A9.4.2. Personal Protection.

A9.4.2.1. Clothing.

A9.4.2.2. Shelter (equipment/natural).

A9.4.3. Local/deploying area Terrain.

A9.4.3.1. Navigation.

A9.4.3.2. Reference points.

A9.4.3.3. Hazards.

A9.4.3.4. Benefits.

A9.4.4. Medical.

A9.4.4.1. Life threatening.

A9.4.4.2. Minor medical problems.

A9.4.4.3. Self-aid.

A9.4.5. Water Sources.

A9.4.5.1. Survival kit.

A9.4.5.2. Natural (locations).

A9.4.5.3. Procurement/preparation.

A9.4.6. Local/deploying area Rescue Procedures.

A9.4.6.1. Types of rescue assets available.

A9.4.6.2. Procedures.

A9.4.6.3. Rescue devices used.

Attachment 10 (Added)**GPS INSPECTION PROCEDURES**

A10.1. Garmin GPS receivers that have acquired satellite acquisition and downloaded almanac data must periodically reacquire satellite signals and update stored almanac data. Receivers that have been in storage for 90 days or longer will not automatically obtain satellite acquisition. The outdated almanac data must be cleared to force the receiver to obtain new almanac data. Pressing and holding the “page” button, then pressing the “power” button, and then releasing the “page” button, can accomplish this. Using this procedure requires approximately 10 to 15 minutes acquisition time.

A10.2. Approximately every 30 days obtain satellite acquisition. Allow the receiver to track the satellites for a minimum of 15 minutes. This will update the stored almanac data.

A10.3. LSS will ensure the following 30 day inspection procedures are used for each Garmin GPS placed into service. Inspections will be tracked separately. The LSS will determine inspection-tracking method; however, ALSMS is recommended.

A10.3.1. Power on the receiver and obtain satellite acquisition.

A10.3.2. Allow receiver to track satellite for 15 minutes minimum from first satellite acquisition.

A10.3.3. Turn receiver off.

A10.3.4. Update inspection record.

A10.4. Units that store their Garmin GPS receivers will utilize the following procedures prior to placing the receivers in service. These procedures should be utilized from the area where the receiver will be operationally used.

A10.4.1. Obtain satellite acquisition and new almanac data by pressing and holding the “page” button, then pressing the “power” button, and then releasing “page” button. Allow the receiver to track satellites for 15 minutes from first satellite acquisition. Turn receiver off. Update inspection records.

A10.4.2. Inspect each receiver IAW paragraph 3 until the receiver is placed back into storage.

A10.5. Perform steps outlined in paragraph 4 prior to first flight upon arrival at deployed location to ensure almanac data is updated for the deployed location.

Attachment 11(Added)

COLD WEATHER CLOTHING REQUIREMENTS FOR EJECTION SEAT AIRCRAFT

<u>Temperature Range</u> (Temperature in route of flight dictate clothing)	Must wear: CWU-27/P summer weight flight suit plus the appropriate temperature items
Above 32 Fahrenheit	Individual preference
32 to 0 Fahrenheit	Selection of the following: <ul style="list-style-type: none"> – Thermal underwear: Cotton knit, CWU-43/P and CWU-44/P aramid ensemble with Summer Weight Jacket – Polypropylene “Thermax” with Summer Weight Jacket – PTU – Fleece Jacket and a fleece pant
	<u>Footwear:</u> Mukluks, “Sorrels”, or winter weight boot
	<u>Gloves:</u> Nomex flight gloves with liners (Liners worn or carried)
	<u>Cap:</u> <ul style="list-style-type: none"> – B-9B (Russian Pile Hat) or – wool ski cap or pull over Nomex hood (“Fire Fighters”) cap or – insulated hood for winter flight jacket
Below 0 Fahrenheit	<u>Dacor Three Layer Suit or</u> 300 weight Fleece Jacket, fleece 200 weight Pants, and summer weight jacket or <u>Selection of the following</u> <ul style="list-style-type: none"> – Thermal underwear: Cotton knit, CWU-43/P and CWU-44/P aramid ensemble with Summer Weight Jacket – PTU – Polypropylene “Thermax” with Summer Weight Jacket PLUS <ul style="list-style-type: none"> – CWU-64/P winter flight suit or – CWU-45/P winter flight jacket (replaces summer jacket) and CWU-18/P (fat boy pants) or – CWU-45/P winter flight jacket (replaces summer jacket) and CWU-9/P trousers (Chinese underwear)
	<u>Gloves: Nomex gloves with liners are to be worn in the cockpit</u> <ul style="list-style-type: none"> – Leather Mittens (Gauntlets) gloves with wool inserts or – “Thinsulate” Equivalent gloves are to be carried
	<u>Footwear:</u> Mukluks, “Sorrels”, or winter weight boot
	<u>Cap:</u> <ul style="list-style-type: none"> – B-9B (Russian Pile Hat) or – wool ski cap or pull over Nomex hood “Fire Fighters” cap or insulated hood for winter flight jacket

Attachment 12 (Added)**COLD WEATHER GEAR REQUIREMENTS
FOR NON-EJECTION SEAT AIRCREW MEMBERS**

Aircrew on non-ejection seat equipped aircraft must have in their possession (worn or hand carried) the following flight clothing items for all flights from 01 October - 15 April or when areas being over flown are below 32 degrees F. Mandatory flight clothing items for these aircraft are as follows (Aircraft with the vacuum packed Wiggy Walk Around Sleeping bag and mukluks prepositioned are exempt from these requirements):

Thermal underwear: Cotton knit, CWU-43/P and CWU-44/P aramid ensemble, PTU or polypropylene "Thermax".
Plus <u>one</u> of the following: <ul style="list-style-type: none">• CWU-64/P winter flight suit or,• Parka and CWU-18/P (fat boy pants) or,• CWU-45/P winter flight jacket with insulated hood and CWU-18/P (fat boy pants)• Fleece three Layer Suit (No additional thermal underwear required)• Fleece Jacket, Fleece Pants, and summer weight jacket (No additional thermal underwear required)
Plus all of the following: <ul style="list-style-type: none">• Heavy Cap: B-9B, or wool ski cap.• Gloves: Leather Mitten shells with wool inserts.• FLU-8/P insulated flight boots or "winter weight boot" (Worn)• Approved Footwear: N-1b mukluks, "Sorrel" or vapor barrier (Bunny) boots.

GARRY R. TREXLER, Major General, USAF
Director of Air and Space Operations